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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,601	09/12/2003	R. Donald Grafton	A8130.0153/P153	7642
24998	7590	04/27/2007		
DICKSTEIN SHAPIRO LLP 1825 EYE STREET NW Washington, DC 20006-5403			EXAMINER POUS, NATALIE R	
			ART UNIT	PAPER NUMBER
			3731	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/27/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/660,601

Applicant(s)

GRAFTON ET AL.

Examiner

Natalie Pous

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-18 is/are rejected.
- 7) ☒ Claim(s) 5 and 6 is/are objected to.
- 8) ☒ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/14/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/12/07 has been entered.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection based on amendments to the claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2, 3, 7-9, 11, 12, 15, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenkins, Jr. (US 5571139) in view of Grafton et al. (US 5964783).

Jenkins Jr. teaches a suture anchor (1) comprising:

- a bioabsorbable (Column 3, proximate line 42) anchor body (13) having a proximal end and a distal end; and a suture loop (27 or 28) formed of a strand of suture (it is noted that knot 27 comprises a loop of suture), the suture loop being disposed completely within the anchor body.
- wherein the suture anchor has a predetermined length and wherein the suture loop (28) is recessed from the proximal end of the anchor body by about one third of the predetermined length (fig. 3b)
- wherein the anchor body is provided with a drive socket (31) and the suture loop is disposed within the drive socket (fig. 3b)
- comprising a strand of a knot tying suture threaded through the suture loop (it is noted that the non-loop portion of the knot 27 or 28 is a strand of knot tying suture)
- wherein the anchor body is treaded from the proximal end to the distal end (fig. 1)
- wherein the anchor body has a constant outer diameter and a tapered inner diameter (fig. 2)

Jenkins Jr. fails to teach wherein the suture loop is insert-molded into the anchor body. Grafton teaches a suture anchor wherein a suture material is insert molded into

the anchor body in order to increase pull out strength of the suture from the anchor body. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Jenkins Jr. with an insert-molded suture loop in order to increase pull out strength of the suture from the anchor body.

Claims 10, 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Jenkins Jr. and Grafton (5964783) and further in view of Grafton et al. (US 6319270).

The combination of Jenkins Jr. and Grafton (5964783) teaches all limitations of previous dependent claims 1, 9, 11 and 17 as previously described, but fails to teach wherein the anchor body has a constant outer diameter and a stepped tapered inner diameter and wherein the anchor thread extending between the proximal end and the distal end of the body has a crest which tapers from wide to narrow from the proximal end to the distal end of the body. Grafton (6319270) teaches a suture anchor wherein the anchor body has a constant outer diameter and a stepped tapered inner diameter and wherein the anchor thread extending between the proximal end and the distal end of the body has a crest which tapers from wide to narrow from the proximal end to the distal end of the body in order to provide an increased percentage of thread surface area for each turn of the anchor, thus providing increased pull-out strength, and a decreased tendency for back-out (Column 2, proximate lines 1-10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Jenkins Jr. and Grafton (5964783) as taught by Grafton (6319270) in order to provide an increased percentage of thread surface area for each turn of the

anchor, thus providing increased pull-out strength, and a decreased tendency for back-out.

Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Jenkins Jr. and Grafton (5964783) as previously described, and further in view of Jackson (US 6454772).

The combination of Jenkins Jr. and Grafton (5964783) teaches all limitations of preceding dependent claims 1 and 11, but fails to teach wherein the drive socket has at least one slot for receiving a corresponding protrusion on a driver head. Jackson teaches a threaded surgical implant, comprising a drive socket having a pair of slot tool receivers in order to receive a corresponding protrusion on a driving tool for effective delivery of the device to the tissue. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Jenkins Jr. and Grafton (5964783) with slot tool receivers as taught by Jackson in order to receive a corresponding protrusion on a driving tool for effective delivery of the device to the tissue.

Allowable Subject Matter

Claims 5 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalie Pous whose telephone number is (571) 272-

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6140. The examiner can normally be reached on Monday-Friday 8:00am-5:30pm, off every 2nd Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anhtuan Nguyen can be reached on (571) 272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NRP
4/24/07


ANH TUAN T. NGUYEN
SUPERVISORY PATENT EXAMINER
